IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Staszewski et al
Anticipated Group Art Unit: not assigned
Anticipated Examiner: not assigned
Title: Transmit Filter

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Name

10/31/01
Date of Signature

Honorable Commissioner of
Patent and Trademarks
Washington, D.C. 20231

Dear Sir:

PRELIMINARY AMENDMENT

Prior to examination of the accompanying patent, please enter the following amendments.

IN THE SPECIFICATION

Please replace paragraph [0071] with the following:

[0071] There are circumstances that may benefit from generating sample points on less than every CKR clock cycle. One situation would occur if the frequency of CKR is much greater than the baseband symbol clock, thereby causing the generation of excessive sample points. For example, if eights sample points per symbol are deemed sufficient, then, for a 1 MHz symbol clock, a CKR frequency on the order of 8 MHz would be appropriate. But, if the only available clock was 40 MHz, for example, it may be desirable to reduce the number of sample points 90 rather than generate nearly twice as many as necessary, which would cause excessive power consumption, particularly in the filter circuit 108.

In this case, logic could randomly select instances where a sample point would not be generated. In the above example, if four out of five potential sample points were not generated, the goal of 8 sample points per symbol would be accomplished. Every fifth sample point could be chosen for output; however, in some circumstances is may be beneficial to randomly chose sample points for generation, where one out of five would be chosen on average, which would reduce spurs on the RF output.

IN THE CLAIMS

Please replace the following claims:

1 (Amended). A transmit filter for generating an oversampled signal from a stream of data symbols generated responsive to a symbol clock, comprising:

circuitry for receiving the data symbol stream;

phase tracking circuitry, responsive to the a reference clock generated independently from the symbol clock, for maintaining phase information relative to the symbol clock; and

sample generating circuitry for generating samples responsive to said phase information.

8 (Amended). The transmit filter of claim 7 wherein said predetermined value is based on a ratio between a frequency associated with said symbol clock and a frequency associated with said reference clock.

18 (Amended). A method of generating an oversampled signal from a stream of data symbols generated responsive to a symbol clock, comprising the steps of:

receiving the data symbol stream;

responsive to a reference clock generated independently from the symbol clock, for maintaining phase information relative to the symbol clock; and

generating samples responsive to said phase information and said reference clock.

25 (Amended). The method of claim 24 wherein said predetermined value is based on a ratio between a frequency associated with said symbol clock and a frequency associated with said reference clock.

REMARKS

The Commissioner is hereby authorized to charge any fees or credit any overpayment to Deposit Account No. 01-1615 of Anderson, Levine & Lintel, L.L.P.

Respectfully submitted,
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October 31, 2001

Version with Changes

In the Specification:

[0071] There are circumstances that may benefit from generating sample points on less than every CKR clock cycle. One situation would occur if the frequency of CKR is much greater than the baseband symbol clock, thereby causing the generation of excessive sample points. For example, if eights sample points per symbol are deemed sufficient, then, for a 1 MHz symbol clock, a CKR frequency on the order of 8 MHz would be appropriate. But, if the only available clock was 40 MHz, for example, it may be desirable to reduce the number of sample points 90 rather than generate nearly twice as many as necessary, which would cause excessive power consumption, particularly in the filter circuit 108. In this case, logic could randomly select instances where a sample point would not be generated. In the above example, if four out of five potential sample points were not generated, the goal of 8 sample points per symbol would be accomplished. Every fifth sample point could be chosen for output; however, in some circumstances is may be beneficial to randomly chose sample points for generation, where one out of five would be chosen on average, which would reduce spurs on the RF output.

In the Claims:

1 (Amended). A transmit filter for generating [a] an oversampled signal from a stream of data symbols generated responsive to a symbol clock, comprising:

circuitry for receiving the data symbol stream;

phase tracking circuitry, responsive to the a reference clock generated independently from the symbol clock, for maintaining phase information relative to the symbol clock; and

sample generating circuitry for generating samples responsive to said phase information.

8 (Amended). The transmit filter of claim 7 wherein said predetermined value is based on a ratio between a frequency associated with said symbol clock and a frequency associated with said reference clock.

18 (Amended). A method of generating [a] an oversampled signal from a stream of data symbols generated responsive to a symbol clock, comprising the steps of:

receiving the data symbol stream;

responsive to a reference clock generated independently from the symbol clock, for maintaining phase information relative to the symbol clock; and

generating samples responsive to said phase information and said reference clock.

25 (Amended). The method of claim 24 wherein said predetermined value is based on a ratio between a frequency associated with said symbol clock and a frequency associated with said reference clock.